HPLC method chosen for acetaldehyde and formaldehyde.

(e) Other sampling and analytical techniques will be allowed if they can be proven to have equal specificity and equal or better limits of quantitation. Data from alternative methods that can be demonstrated to have equivalent or superior limits of detection, precision, and accuracy may be accepted by the Administrator with individual prior approval.

§§ 80.57–80.58 [Reserved]

§ 80.59 General test fleet requirements for vehicle testing.

(a) The test fleet must consist of only 1989–91 MY vehicles which are technologically equivalent to 1990 MY vehicles, or of 1986–88 MY vehicles for which no changes to the engine or exhaust system that would significantly affect emissions have been made through the 1990 model year. To be technologically equivalent vehicles at minimum must have closed-loop systems and possess adaptive learning.

(b) No maintenance or replacement of any vehicle component is permitted except when necessary to ensure operator safety or as specifically permitted in § 80.60 and § 80.61. All vehicle maintenance procedures must be reported to the Administrator.

(c) Each vehicle in the test fleet shall have no fewer than 4,000 miles of accumulated mileage prior to being included in the test program.

[59 FR 7813, Feb. 16, 1994, as amended at 59 FR 36962, July 20, 1994]

§ 80.60 Test fleet requirements for exhaust emission testing.

(a) Candidate vehicles which conform to the emission performance requirements defined in paragraphs (b) through (d) of this section shall be obtained directly from the in-use fleet and tested in their as-received condition.

(b) Candidate vehicles for the test fleet must be screened for their exhaust VOC emissions in accordance with the provisions in § 80.62.

(c) On the basis of pretesting pursuant to paragraph (b) of this section, the test fleet shall be subdivided into two emitter group sub-fleets: the normal emitter group and the higher emitter group.

(1) Each vehicle with an exhaust total hydrocarbon (THC) emissions rate which is less than or equal to twice the applicable emissions standard shall be placed in the normal emitter group.

(2) Each vehicle with an exhaust THC emissions rate which is greater than two times the applicable emissions standard shall be placed in the higher emitter group.

(d) The test vehicles in each emitter group must conform to the requirements of paragraphs (d)(1) through (4) of this section.

(1) Test vehicles for the normal emitter sub-fleet must be selected from the list shown in this paragraph (d)(1). This list is arranged in order of descending vehicle priority, such that the order in which vehicles are added to the normal emitter sub-fleet must conform to the order shown (e.g., a ten-vehicle normal emitter group sub-fleet must consist of the first ten vehicles listed in this paragraph (d)(1)). If more vehicles are tested than the minimum number of vehicles required for the normal emitter sub-fleet, additional vehicles are to be added to the fleet in the order specified in this paragraph (d)(1), beginning with the next vehicle not already included in the group. The vehicles in the normal emitter sub-fleet must possess the characteristics indicated in the list. If the end of the list is reached in adding vehicles to the normal emitter sub-fleet and additional vehicles are desired then they shall be added beginning with vehicle number one, and must be added to the normal emitter sub-fleet in accordance with the order in table A:

TABLE A—TEST FLEET DEFINITIONS

Veh. No.	Fuel system	Catalyst	Air injection	EGR	Tech. group	Manufacturer
1	Multi	3W	No Air	EGR	1	GM.
2	Multi	3W	No Air	No EGR	2	Ford.

TABLE A—TEST FLEET DEFINITIONS—Continued

Veh. No.	Fuel system	Catalyst	Air injection	EGR	Tech. group	Manufacturer
3	TBI	3W	No Air	EGR	3	GM.
4	Multi	3W+OX	Air	EGR	4	Ford.
5	Multi	3W	No Air	EGR	1	Honda.
6	Multi	3W	No Air	No EGR	2	GM.
7	TBI	3W	No Air	EGR	3	Chrysler.
8	Multi	3W+OX	Air	EGR	4	GM.
9	TBI	3W+OX	Air	EGR	7	Chrysler.
10	Multi	3W	Air	EGR	5	Toyota.
11	Multi	3W	No Air	EGR	1	Ford.
12	Multi	3W	No Air	No EGR	2	Chrysler.
13	Carb	3W+OX	Air	EGR	9	Toyota.
14	TBI	3W	No Air	EGR	3	Ford.
15	Multi	3W+OX	Air	EGR	4	GM.
16	Multi	3W	No Air	EGR	1	Toyota.
17	Multi	3W	No Air	No EGR	2	Mazda.
18	TBI	3W	No Air	EGR	3	GM.
19	Multi	3W+OX	Air	EGR	4	Ford.
20	Multi	3W	No Air	EGR	1	Nissan.

TABLE B—TECH GROUP DEFINITIONS IN TABLE A

Tech group	Fuel system	Catalyst	Air injection	EGR
1	Multi	3W	No Air	EGR.
2	Multi	3W	No Air	No EGR.
3	TBI	3W	No Air	EGR.
4	Multi	3W+OX	Air	EGR.
5	Multi	3W	Air	EGR.
6	TBI	3W	Air	EGR.
7	TBI	3W+OX	Air	EGR.
8	TBI	3W	No Air	No EGR.
9	Carb	3W+OX	Air	EGR.

Legend:

Fuel system:
Multi = Multi-point fuel injection
TBI = Throttle body fuel injection
Carb = Carburetted

Catalyst:
3W = 3–Way catalyst
3W+OX = 3–Way catalyst plus an oxidation catalyst

Air Injection:
Air = Air injection

EGR = Exhaust gas recirculation

(2) Test vehicles for the higher emitter sub-fleet shall be selected from the in-use fleet in accordance with paragraphs (a) and (b) of this section and with §80.59. Test vehicles for the higher emitter sub-fleet are not required to follow the pattern established in paragraph (d)(1) of this section.

(3) The minimum test fleet size is 20 vehicles. Half of the vehicles tested must be included in the normal emitter sub-fleet and half of the vehicles tested must be in the higher emitter sub-fleet. If additional vehicles are tested beyond the minimum of twenty vehicles, the additional vehicles shall be distributed equally between the normal and higher emitter sub-fleets.

(4) For each emitter group sub-fleet, 70 ± 9.5% of the sub-fleet must be LDVs, & 30 ± 9.5% must be LDTs. LDTs include light-duty trucks class 1 (LDT1), and light-duty trucks class 2 (LDT2) up to 8500 lbs GVWR.

§ 80.61 [Reserved]

§ 80.62 Vehicle test procedures to place vehicles in emitter group sub-fleets.

One of the two following test procedures must be used to screen candidate vehicles for their exhaust THC emissions to place them within the emitter group sub-fleets in accordance with the requirements of §80.60.

(a) Candidate vehicles may be tested for their exhaust THC emissions using the Federal test procedure as detailed in 40 CFR part 86, with gasoline conforming to requirements detailed in 40 CFR 86.113–90. The results shall be used in accordance with the requirements in